

the genetic material to become immobilized to the [column] column;

- c) labeling the immobilized genetic material within the column via a radical-mediated process; and
- d) eluting the labeled material from the column wherein the method occurs within 20 minutes.

2. (Twice Amended) A method for [manipulating] labeling genetic material, the method comprising:

- a) disrupting cells so as to liberate genetic material contained in the cells;
- b) contacting the genetic material to a column in a manner to cause the genetic material to become immobilized to the column;
- c) labeling the immobilized genetic material via a radical-mediated procedure; and
- d) eluting the labeled material from the column wherein the step of labeling the genetic material further comprises maintaining the column at a temperature of between 45 °C and 100 °C.

5. (Twice Amended) A method for [manipulating] labeling genetic material, the method comprising:

- a) disrupting cells so as to liberate genetic material contained in the cells;
- b) contacting the genetic material to a column in a manner to cause the genetic material to become immobilized to the column;
- c) labeling the immobilized genetic material; and
- d) eluting the labeled material from the column wherein the step of labeling the genetic material comprises:
- e) contacting double-stranded nucleic acid molecules of the genetic material with radical-generating complexes for a time and at concentrations sufficient to

produce free-aldehyde moieties;

- subj*
- f) reacting the aldehyde moieties with amine to produce a condensation product; and
 - CC2*
 - g) contacting the condensation product with a chromophore.
 - cond*

9. (Twice Amended) A two-buffer process for [manipulating] labeling genetic material, the process comprising:

- a) contacting cells containing the genetic material to a silica column;
- b) creating a first fraction of cell detritus and a second fraction containing the genetic material;
- c) confining the genetic material to the column;
- d) removing the cell detritus;
- e) subjecting the genetic material to radicals so as to produce reactive aldehyde groups on the genetic material; and
- C3*
- f) attaching chromophore to the genetic material wherein the genetic material is contacted with radical in aerobic conditions.

10. (Twice Amended) A two-buffer process for [manipulating] labeling genetic material, the process comprising:

- a) contacting cells containing the genetic material to a silica column;
- b) creating a first fraction of cell detritus and a second fraction containing the genetic material;
- c) confining the genetic material to the column;
- d) removing the cell detritus;
- e) subjecting the genetic material to radicals so as to produce reactive aldehyde groups on the genetic material; and
- f) attaching chromophore to the genetic material wherein the genetic material is contacted with radical in anaerobic conditions.

13. (Twice Amended) A two-buffer process for [manipulating] labeling genetic material, the process comprising:

- a) contacting cells containing the genetic material to a silica column;
- b) creating a first fraction of cell detritus and a second fraction containing the genetic material;
- c) confining the genetic material to the column;
- d) removing the cell detritus;
- e) subjecting the genetic material to radicals so as to produce reactive aldehyde groups on the genetic material; and
- f) attaching chromophore to the genetic material wherein the two buffers comprise a first buffer to lyse the cells and a second buffer to attach the genetic material to the column.

Please add claims 26 and 27 as follows:

26. A two buffer process for fractionating and labeling DNA and RNA contained in a lysate, the process comprising:

- a) contacting the lysate with a first column packed with material so as to confine the DNA to the first column and allow the RNA to pass through the first column;
- b) contacting the passed through RNA to a second column packed with material so as to confine the RNA to the second column;
- c) subjecting the confined DNA and confined RNA to radicals so as to produce reactive aldehyde groups on the DNA and RNA;
- d) attaching chromophore to the DNA and RNA; and
- e) eluting the DNA from the first column and the RNA from the second column, wherein the two buffers comprise a first buffer to lyse cells containing the DNA and RNA and a second buffer to attach the DNA to the first column and the RNA to the second column.

27. The process as recited in claim 26 wherein the entire process occurs